

CLAIMS

1. An adhesive tape comprising a backing comprising a fibrous woven or nonwoven layer of thermoplastic polymer fibers, said backing having a first side formed of said fibrous layer with a silicone release layer and a second side of the backing opposite the first side having thereon a pressure sensitive adhesive layer, said silicone release layer comprising a cured reaction product of a curable composition comprising (i) a polydialkylsiloxane having acrylate and/or methacrylate groups and (ii) an organic compound free of silicon and comprising at least two reactive groups selected from of an acrylate [and] or a methacrylate group, said adhesive tape having a 90° peel adhesion of at least 6 N/2.54cm relative to a polyethylene film surface and said adhesive tape having a Keil test value of not more than 1 N/2.54cm.
2. An adhesive tape according to claim 1 wherein said backing comprises a laminate of said fibrous layer and a plastic film layer.
3. An adhesive tape according to claim 1 wherein the ratio of the average number of dialkylsiloxane units to the average number of acrylate and methacrylate groups of said polydialkylsiloxane is between 10 and 15 and wherein said organic compound has a viscosity of at least 500mPa s at 25°C.
4. An adhesive tape according to claim 1 wherein said polydialkylsiloxane is a polydimethylsiloxane.
5. An adhesive tape according to claim 1 wherein said adhesive layer comprises a rubber based adhesive comprising a tackifying resin.
6. An adhesive tape according to claim 5 comprising styrene-isoprene-styrene block copolymers.
7. An adhesive tape according to any of the previous claims in the form of a roll.

8. A prelaminated composite tape in a roll from which a composite adhesive closure tab for an absorbent article can be cut,

the prelaminated composite tape including an adhesive tape comprising a backing comprising a fibrous woven or nonwoven layer of thermoplastic polymer fibers, said backing having said fibrous layer with a silicone release layer and a second side of the backing opposite to the first side having hereon a pressure sensitive adhesive layer, said silicone release layer comprising a cured reaction product of a curable composition comprising (i) a polydialkylsiloxane having acrylate and/or methacrylate groups and (ii) an organic compound free of silicon and comprising at least two reactive groups selected from an acrylate or a methacrylate group,

said adhesive tape having a 90° peel adhesion of at least 6 N/2.54cm relative to a polyethylene film surface and a Keil test value of not more than 1 N/2.54cm,

a first axial extending section of the backing having a mechanical fastener disposed on the pressure sensitive adhesive layer,

and a second axial extending section of the backing has an exposed pressure sensitive adhesive layer for attaching to an edge portion of an absorbent article.

9. A prelaminated composite tape according to claim 8 wherein said backing comprises a laminate of a fibrous layer and a polymeric film.

10. A prelaminated composite tape according to claim 8 wherein the ratio of the average number of dialkylsiloxane units to the average number of acrylate and methacrylate groups of said polydialkylsiloxane is between 10 and 15 and said organic compound has a viscosity of at least 500mPa s at 25°C.

11. Absorbent article comprising an adhesive closure tape attached to an edge portion, the adhesive closure tape comprising a backing comprising a fibrous woven or nonwoven layer of thermoplastic polymer fibers, said backing having a first side formed of said fibrous layer with a silicone release layer and a second side of the backing opposite the first side having thereon a pressure sensitive adhesive layer, said silicone release layer comprising a cured reaction product of a curable composition comprising (i) a polydialkylsiloxane having

acrylate and/or methacrylate groups and (ii) an organic compound free of silicon and comprising at least two reactive groups selected from an acrylate or a methacrylate group, said adhesive tape having a 90° peel adhesion of at least 6 N/2.54cm relative to a polyethylene film surface and said adhesive tape having a Keil test value of not more than 1 N/2.54cm,

a first section of the adhesive closure tape being adhered to the edge portion of the absorbent article by said pressure sensitive adhesive layer and

a second section of the adhesive closure tape having a mechanical fastener disposed on the pressure sensitive adhesive layer,

and the absorbent article further comprising on the outside surface a mechanical fastener capable of engaging with the mechanical fastener of the adhesive closure tape.

12. A method of making a release coated backing having a fibrous layer of woven fibers or of non-woven fibers of thermoplastic polymer, comprising the steps of coating a curable silicone release coating composition on the fibrous layer of the backing and curing the thus applied silicone release coating by exposing it to actinic radiation or heat, said curable silicone release coating composition comprising

(i) a polydialkylsiloxane having acrylate and/or methacrylate groups and the ratio of the average number of dialkylsiloxane units to the average number of acrylate and methacrylate groups being between 10 and 15, and

(ii) an organic compound free of silicon and comprising at least two reactive groups selected from the group consisting of an acrylate and a methacrylate group, said organic compound free of silicon having a viscosity of at least 500mPa s at 25°C, and the weight ratio of said polydialkylsiloxane to said organic compound being between 8:92 and 35:65.

13. A method according to claim 12 wherein said curable silicone release coating composition further comprises a photo-initiator and said release coating is exposed to actinic radiation.

14. A method for making an adhesive coated tape comprising the steps of providing a release coated backing by the method defined in claim 12 and applying an adhesive layer to the side of the backing opposite to the side having the silicone release coating.

5 15. A release coating composition comprising:

(i) a polydialkylsiloxane having acrylate and/or methacrylate groups and the ratio of the average number of dialkylsiloxane units to the average number of acrylate and methacrylate groups being between 10 and 15,

10 (ii) an organic compound free of silicon and comprising at least two reactive groups selected from the group consisting of an acrylate and a methacrylate group, said organic compound free of silicon having a viscosity of at least 500mPa s at 25°C, and the weight ratio of said polydialkylsiloxane to said organic compound being between 8:92 and 35:65, and

(iii) optionally a photo-initiator.

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16. A release coating obtained by curing a release coating comprising:

(i) a polydialkylsiloxane having acrylate and/or methacrylate groups and the ratio of the average number of dialkylsiloxane units to the average number of acrylate and methacrylate groups being between 10 and 15,

20 (ii) an organic compound free of silicon and comprising at least two reactive groups selected from the group consisting of an acrylate and a methacrylate group, said organic compound free of silicon having a viscosity of at least 500mPa s at 25°C, and the weight ratio of said polydialkylsiloxane to said organic compound being between 8:92 and 35:65, and

25 (iii) optionally a photo-initiator.